REMARKS

Rejection of Claims 21-23 Under 35 U.S.C. § 103(a)

Claims 21-23 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,352,782 to Yeager et al. (Yeager) in view of U.S. Patent No. 6,759,507 to Yoshida et al. (Yoshida), U.S. Patent No. 3,994,859 to Floryan et al. (Floryan), or U.S. Patent No. 4,246,398 to Sugio et al. (Sugio). 7/8/05 Office Action, page 2, second paragraph. Applicants respectfully traverse this rejection.

The Examiner states,

> Applicant has traversed the Examiner's rejection of claims 21-23 on the grounds that no reference has been cited in support of his assertion that it is widely known to water-wash a solution of poly(arylene ether) in order to remove the polymerization catalyst. The Examiner offers herein the aforementioned three references, though there are a multitude of others, to illustrate that this practice is widely recognized by the skilled artisan. See Example 1 of *Yoshida*, column 1 of *Floryan*, and column 1, lines 64-68 through column 2, lines 1-17 of *Sugio*.

7/8/05 Office Action, page 2, third paragraph.

"The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 23 U.S.P.Q.2d 1780, 1783-1784 (Fed. Cir. 1992). "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *Id.* at 1784. Applicants respectfully assert that the prior art cited here does not suggest the desirability of the modification described by the Examiner.

As the Examiner acknowledges in his remarks, Yoshida, Floryan, and Sugio each teach water washes "to remove the polymerization catalyst." In Yoshida, water washing is expressly used to remove polymerization catalyst from a polymerization reaction mixture. *See, e.g.,* Yoshida, column lines 48-57. There is no motivation to modify Yeager according to Yoshida because there is no polymerization catalyst to remove from

Yeager's reaction mixtures for capping polyphenylene ethers. Note, in particular, that Yeager uses a pre-formed polyphenylene ether as a starting material for the capping reaction. *See, e.g.*, Yeager, column 15, lines 30-41.

Similarly, the aqueous bisulfate solutions used in Floryan (*see, e.g.*, column 1, lines 59-63) are expressly intended to remove metal and amine components of a catalyst for oxidative polymerization of a monovalent phenol to form a polyphenylene ether (*see, e.g.*, column 1, lines 21-25). There is no motivation to modify Yeager according to Floryan because there is no oxidative polymerization catalyst to remove from Yeager's reaction mixtures for capping polyphenylene ethers.

The situation is no different with Sugio, where aqueous solutions are used to remove polymerization catalyst from a polyphenylene ether polymerization reaction mixture. *See, e.g.*, Sugio column 1, line 46 to column 2, line 17. There is no motivation to modify Yeager according to Sugio because there is no polymerization catalyst to remove from Yeager's reaction mixtures for capping polyphenylene ethers.

To summarize, Yoshida, Floryan, and Sugio each teach the use of aqueous solutions to remove oxidative polymerization catalyst from polyphenylene ether polymerization reaction mixtures. Yeager, in contrast, relates not to polyphenylene ether polymerization reactions but to reactions in which a (pre-existing) uncapped polyphenylene ether is reacted with a capping reagent to form a capped polyphenylene ether. There is no oxidative polymerization catalyst in Yeager's reaction mixture, and there is therefore no reason for one of ordinary skill in the art to modify Yeager's procedure by adding an aqueous wash elsewhere taught as useful to remove an oxidative polymerization catalyst from a polyphenylene ether polymerization reaction mixture. Accordingly, the cited combination of references does not render obvious Applicants' claim 21-23 inventions.

Applicants therefore respectfully request the reconsideration and withdrawal of the rejection of claims 21-23 under 35 U.S.C. § 103(a).

Rejection of Claims 41,45, 48, 50, and 51 Under 35 U.S.C. § 103(a)

Claims 41, 45, 48, 50, and 51 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Yeager in view of U.S. Patent No. 5,194,517 to Blubaugh et al. (Blubaugh), U.S. Patent No. 5,171,825 to Hedtmann-Rein et al. (Hedtmann-Rein), or U.S. Patent No. 5,998,533 to Weber et al. (Weber). 7/8/05 Office Action, page 2, fourth paragraph. This rejection has been rendered moot by the cancellation, without prejudice, of claims 41,45,48, 50, and 51.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' Attorneys.

Respectfully submitted,

CANTOR COLBURN LLP
Applicants' Attorneys

By: J. Michael Buchanan
J. Michael Buchanan
Registration No. 44,571

Date:	August 4, 2005
Customer No.:	23413
Telephone:	(860) 286-2929